

# ANATOMY: An Analytical Model of Memory Systems

## 1. Appendix

The workload mixes used in our studies are presented in Table 1. The table specifies the SPEC 2000/2006 benchmark number (e.g: 462 denotes 462.libquantum in the SPEC 2006 suite) used in each workload. The position of the benchmark number in each array denotes which core the benchmark was run on (e.g: In the quad-core workload mix Q1, 462 was run on core-0, 459 on core-1 and so on).

<b>Quad-Core Workloads</b> Q1:(462,459,470,433), Q2:(429,183,462,459), Q3:(429,462,471,464), Q4:(470,437,187,300), Q5:(462,470,473,300), Q6:(459,464,183,433), Q7:(410,464,445,433), Q8:(462,459,445,410), Q9:(429,456,450,459), Q10:(181,186,300,177), Q11:(168,401,435,464), Q12:(434,435,437,171), Q13:(444,445,459,462), Q14:(401,410,178,177), Q15:(300,254,255,470), Q16:(171,181,464,465), Q17:(464,450,465,473), Q18:(453,433,458,410), Q19:(462,471,254,186), Q20:(462,191,433,437), Q21:(401,473,435,177), Q22:(416,429,454,175), Q23:(254,172,178,188)
<b>Eight Core Workloads</b> E1:(462,459,433,456,464,473,450,445), E2:(300,456,470,179,464,473,450,445), E3:(187,172,173,410,470,433,444,177), E4:(434,435,450,453,462,471,164,186), E5:(416,473,401,172,177,178,179,435), E6:(437,459,445,454,456,465,171,197), E7:(183,179,433,454,464,435,444,458), E8:(183,462,450,471,473,433,254,168), E9:(300,173,178,187,188,191,410,171), E10:(470,177,168,434,410,172,464,171), E11:(459,473,444,453,450,197,175,164), E12:(471,462,186,254,465,445,410,179), E13:(187,470,401,416,433,437,456,454), E14:(300,458,462,470,433,172,191,471), E15:(183,473,401,435,188,434,164,427)
<b>Sixteen Core Workloads</b> S1:(462,459,433,456,464,473,450,445,453,179,183,168,416,434,444,191), S2:(435,465,471,164,186,434,416,256,172,177,178,437,454,171,197,458), S3:(462,473,254,168,183,453,300,173,187,178,188,410,171,434,470,191), S4:(470,177,464,171,172,168,434,410,175,164,444,450,254,465,179,471), S5:(410,433,189,187,177,173,300,255,254,471,458,456,454,437,444,434), S6:(191,189,177,183,179,168,470,164,470,464,459,450,435,256,416,445)

**Table 1: Workloads**